

REMARKS

In the prior action, the claims were rejected for anticipation by the Sasao patent. This rejection was traversed because the Sasao patent only discloses light separation and not the magnetic separation claimed. This rejection should not have been converted into a rejection under 35 USC 103 for obviousness merely by citing a magnetic separation reference such as the Trajmar patent, because there is no motivation to do so, except from the teaching of the application by "... the insidious effect of a hindsight syndrome wherein that which only the inventor taught is sued against its teacher," W.L. Gore & Associates, Inc. v. Garlock, Inc., 220 USPQ 303, 313 (Fed. Cir. 1983).

There are only three possible sources of the necessary motivation to combine particular references: (1) the nature of the problem to be solved; (2) the teachings of the prior art; or (3) the knowledge of persons of ordinary skill in the art. In re Rouffet, 47 USPQ2d 1453. No such motivation is present here.

The technical solution claimed cannot be realized by way of simply accumulating this or that feature of prior art methods. Those in the art can really see this from the method according to the Trajmar patent, which uses low magnetic flux density magnetic fields, e.g. 100 gauss (cf. column 4, lines 55-60) while the claimed technical solution operates with the magnetic fields one order higher, from 1500 to 3500 gauss, as they would understand even though it is not disclosed.

The cited methods pursue different objects. For example, in the Sasao patent, this object is to separate one radioactive isotope palladium-107 from other isotopes. The same method can be helpful in separating a different isotope, but necessarily with a following production cycle while our technical solution, as sought for protection, enables one to separate simultaneously all the palladium isotopes. Your attention is further directed to a low efficiency of separation in terms of enrichment, with reference to the US patent, an illustration of which is afforded by palladium-105 (cf. Fig. 4 wherein its enrichment is 46.1%, whereas according to our method - 98.4 - 99.1%). The same limitation associated with the obtaining of one isotope in a working cycle is characteristic of the technical solution as shown and described in the Trajmar patent.

The Sasao patent contains a disclosure of apparatus allowing one to obtain an atomic beam of a working medium, say, barium and define, by exposure to a magnetic field and frequency modulation, using a laser, with high accuracy, a concrete isotope isolated out of the working medium. It appears to us that it is not possible to perform, using the given apparatus means, isolation of a palladium isotope due to the following reason. Palladium evaporation temperature is approximately twice that of barium.

The Examiner has not cited either in this information source or in others, the facts of prior knowledge of recommendations on the selection of temperature conditions of operation with said palladium as the working medium making it possible to simultaneously separate six stable palladium isotopes with a highest result of enrichment and purity. The contentions that this is known to a person skilled in the art are of a declarative nature.

The merit of the authors of the present invention consists in precisely that they first surmised and then experimentally substantiated and proved the correctness of their

hypotheses, for which purpose some 40 experiments had to be made in support of the correctness of the trend chosen to provide the most favourable temperature conditions to act on the palladium within 1580-1700°C. Thus, the technical solution, as sought for protection, is unobvious.

The Examiner's conclusions that the temperature range, at least so far as claimed in our application, can easily be selected by a person skilled in the art from the process conditions, as shown and described in the US patents, are of a declarative nature. We are unaware of information sources containing recommendations on the selection of temperatures in regard to our concrete task to be solved, especially as these recommendations are absent in the US patents. And last but not least, had the persons skilled in the art been able to perform such selection, the problem of separation of palladium isotopes with our technical results would have been solved before our application filing by other authors.

If we are to judge by the specification of the Sasao patent, the matter concerns an apparatus of the bench testing type that is intended not for accumulating isotopes, but for the quantitative assay of some or other isotope in isotope enriched products, which is testified by the absence of data on said apparatus output and also the presence within apparatus means of a quadrupole mass-spectrometer. Our technical solution permits realizing a task of simultaneously accumulating all the isotopes of a chemical element in industrial volumes with high productivity and a high degree of enrichment.

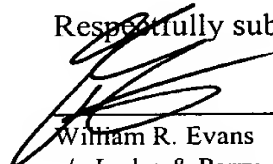
In view of the fact that the US patents use absolutely different apparatus for absolutely different objects, it appears to us that it is not possible to illustrate a comparison of the features of the US patents and the combination of features of the technical solution claimed, because the basic technical characteristics, such as:

- arc discharge current and voltage;
- power of a heater;
- magnetic field strength;
- mean operating time of an apparatus;
- accelerating voltage;
- focusing degree,

which directly affect the technical result, namely productivity and enrichment, are not present in the US patents. There is no way, therefore, that the cited patents can motivate their combination for rejection of the claimed invention.

Reconsideration and allowance are, therefore, requested.

Respectfully submitted,



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